

placed around the periphery of the ring *C* and these set-screws are furnished with check-nuts as shown. By loosening the collar *D* and manipulating set-screws *F*, the working portions of the fixture can be readily trued up when they become slightly out of true through use or abuse. A steel locating ring *N* is forced on the ring *C* and is ground to the¹ size of the interior gear.

The method of clamping is somewhat out of the ordinary, consisting of the use of three clamps *G* and an operating screw *I*, and a floating collar *K*. The three clamps are placed 120 degrees apart and have slightly oversize holes through which the screws *H* pass. These screws have a ball surface on the under side of the collar corresponding to a similar depression in the clamps themselves. A steel bushing *M* is fitted to the body *B* of the fixture, and is threaded with a coarse pitch thread which corresponds to that on the operating screw *I*. After the clamps *G* have been swung into place on the ring gear, a few turns of the screw *I* sets all three of them with a uniform pressure through the medium of the spherical collar *K* which bears against their inner sides. Although a fixture of this kind is somewhat expensive in first cost, all the parts can be readily replaced at a minimum expense and the fixture may also be kept true with the center of rotation of the spindle with very little trouble.

Fixture for a Hub Casting. —The work *A*, shown in Fig. 6, is a hub casting which has been previously machined on the surfaces *B*, *C*, and *D*. The fixture *E* on which it is held for subsequent operations is made of cast iron; it is centered on the table by the plug *F* and held down by the screws *G* which enter the table T-slots. A steel locating ring *H* is forced on the body of the fixture and forms the point of location for the work. Three studs *J* are set 120 degrees apart in the base; and they are surface ground to the correct height to support the work. This arrangement makes locations positive regardless of chips or dirt. The clamps *K* hold the work down on the pins *I*. Features of this fixture are the ease of replacement of the locating rings and points, and freedom from trouble which might be caused by an accumulation of chips or dirt.